

ORIGBEMILA TEMITOPE RUTH

EPIDEMIOLOGY ASSIGNMENT 300L

1. Communicable Diseases

- Communicable diseases are illnesses caused by pathogens that can be transmitted from one person to another, either directly or indirectly.
- Causative agents: Bacteria, viruses, fungi, protozoa, and helminths.
- Modes of transmission
 - Direct transmission: person-to-person contact, droplet spread
 - Indirect transmission: contaminated food/water, vectors (e.g., mosquitoes), fomites
- *Methods of prevention and control*:
 - Vaccination
 - Improved sanitation and hygiene
 - Vector control (e.g., insecticides, bed nets)
 - Isolation and quarantine
 - Health education

2. Endemic, Epidemic, and Pandemic

- *Endemic*: A disease that is consistently present within a specific geographic area or population (e.g., malaria in Nigeria).
- *Epidemic*: A sudden increase in the number of cases of a disease beyond what is normally expected (e.g., cholera outbreak in a refugee camp).
- *Pandemic*: A widespread epidemic that affects multiple countries or continents (e.g., COVID-19 pandemic).



3. Incidence and Prevalence

- *Incidence*: The number of new cases of a disease over a specified period.
- *Prevalence*: The total number of cases of a disease at a specific point in time.
- *Importance*:
 - Incidence helps identify disease trends and risk factors.
 - Prevalence informs resource allocation and healthcare planning.
 - Example: High incidence of HIV in a community may lead to targeted prevention efforts, while high prevalence may require increased treatment and care services.

4. Controlling Communicable Diseases at the Community Level

- *Measures*:
 - Health education and promotion
 - Vaccination campaigns
 - Improved sanitation and hygiene infrastructure
 - Vector control programs
 - Screening and treatment services
 - Community engagement and participation

5. Short Notes

- *a. Epidemiological triangle*: A model that describes the interaction between agent, host, and environment in disease transmission.
- *b. Vehicle-borne transmission*: Transmission of disease through contaminated food, water, or other substances.
- *c. Point prevalence and period prevalence*:



- *Point prevalence*: The number of cases of a disease at a specific point in time.
- *Period prevalence*: The number of cases of a disease over a specified period.

